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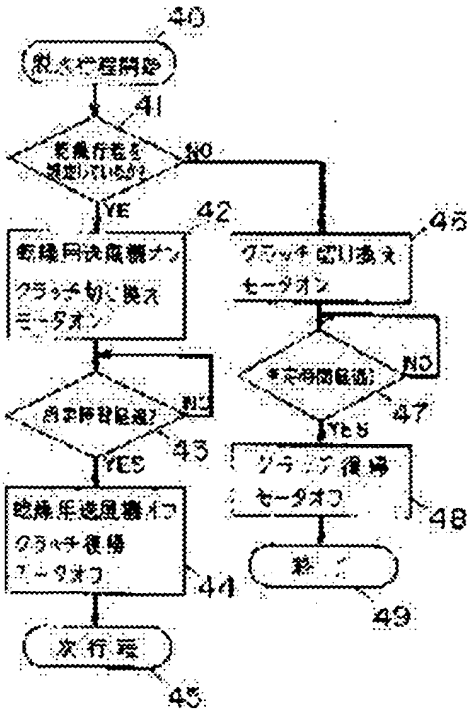
(71)Applicant : MATSUSHITA ELECTRIC IND CO LTD

(72)Inventor : MINAYOSHI HIROKO
MIHARA MASAMITSU
FUKUMOTO MASAMI
MATSUDA SHINICHI

(54) WASHING AND DRYING MACHINE

(57)Abstract:

PROBLEM TO BE SOLVED: To shorten drying time without increasing the number of times of the normal rotation and reverse rotation of a rotary blade in a drying process, to reduce the damages to laundry and to reduce drying irregularities and wrinkles in a washing and drying machine provided with the process of sending hot air into an inner drum housing the laundry and drying the laundry.



SOLUTION: The inner drum for housing the laundry is freely rotatably supported by an outer drum elastically suspended inside a casing, the rotary blade is freely rotatably provided on the inner bottom part of the inner drum, the inner drum or the rotary blade is driven by a motor, air is sent into the inner drum by a blower for drying and the air sent by the blower for drying is heated by a heater. The operations of the motor, the blower for drying and the heater, etc., are controlled by a control means and each of processes of washing, rinsing, spin dry and drying are controlled. The control means drives the inner drum while driving the blower for drying and sending the air into the inner drum in

the spin dry process.

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* NOTICES *

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CLAIMS

[Claim(s)]
[Claim 1] The outside tub which ****(ed) elastically in the case, and the inner lift which supports free [rotation] and holds the washing in said outside tub, The driving means which drives the rotary wing prepared in the inner pars basilaris ossis occipitalis of said inner lift free [rotation], and said inner lift or rotary wing, A ventilation means to ventilate in said inner lift, and a heating means to heat the air ventilated by said ventilation means, It is the wash dryer was equipped with the control means which controls actuation of said driving means, a ventilation means, a heating means, etc., and controls each stroke of wash, a rinse, dehydration, and desiccation, and it was made to drive said inner lift while said control means drove said ventilation means in the dehydration stroke and ventilated in said inner lift.
[Claim 2] A control means is the wash dryer according to claim 1 it was made to drive an inner lift, having driven the heating means in addition to the ventilation means, and ventilating warm air in an inner lift in a dehydration stroke.
[Claim 3] A control means is the wash dryer according to claim 1 or 2 it was made to repeat the stroke which drives said inner lift further after carrying out the predetermined time drive of the inner lift and stopping.
[Claim 4] A control means is the wash dryer according to claim 3 it was made to repeat the stroke which carries out the predetermined time intermittent drive of the rotary wing, and agitates the washing after carrying out the predetermined time drive of the inner lift and stopping, and which drives said inner lift after ******(ing) and performing the stroke.
[Claim 5] The outside tub which ****(ed) elastically in the case, and the inner lift which supports free [rotation] and holds the washing in said outside tub, The driving means which drives the rotary wing prepared in the inner pars basilaris ossis occipitalis of said inner lift free [rotation], and said inner lift or rotary wing, A ventilation means to ventilate in said inner lift, and a heating means to heat the air ventilated by said ventilation means, It has the control means which controls actuation of said driving means, a ventilation means, a heating means, etc., and controls each stroke of wash, a rinse, dehydration, and desiccation. Said control means The wash dryer which was made to perform the stroke which carries out the predetermined time drive of said inner lift once [at least] after carrying out the predetermined time intermittent drive of said rotary wing, having driven said ventilation means and the heating means, and ventilating warm air in said inner lift in a desiccation stroke at least.
[Claim 6] It is a wash dryer given in any 1 term of claims 1-5 which are equipped with a clothes volume detection means to detect the amount of the washing in an inner lift, and changed the drive time amount or the count of a drive of an inner lift according to the amount of the washing which detected the control means.

[Translation done.]

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DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Field of the Invention] This invention relates to the wash dryer which has the stroke which warm air is ventilated [stroke] in the inner lift which holds the washing, and dries the washing.
[0002]
[Description of the Prior Art] Conventionally, this kind of wash dryer was constituted as shown in drawing 8 . Hereafter, the configuration is explained.
[0003] As shown in drawing 8 , a case 1 forms in the interior the outside tub 3 elastically hung by two or more suspensions 2, and is considering it as the configuration which absorbs the vibration at the time of dehydration by the suspension 2. It arranges in the interior of the outside tub 3 pivotable centering on wash / dehydration shaft 5 which made double structure the inner lift 4 which holds the washing and a desiccation object by hollow, and the rotary wing 6 which agitates the washing and a desiccation object at the inner pars basilaris ossis occipitalis of an inner lift 4 is arranged in it, enabling free rotation.
[0004] Moreover, while preparing many stomata (not shown) in the internal peripheral wall of an inner lift 4, up, the fluid balancer 7 is formed. The rotary wing 6 makes the desiccation object easy to soar by the centrifugal force by rotation of a rotary wing 6 upwards along an inclined plane in a desiccation stroke by using the configuration as the pan type which made the periphery the inclined plane.
[0005] The motor 8 was attached in the pars basilaris ossis occipitalis of the outside tub 3, and is connected with the inner lift 4 or the rotary wing 6 through the clutch 9 and wash / dehydration shaft 5 which switch transfer of turning effort to wash / dehydration shaft 5 at the time of wash or dehydration. A rotary wing 6 makes the periphery section the **** type configuration of having an inclined plane 10, and forms the lobe 11 for churning.
[0006] A heat exchanger 12 dehumidifies the damp warm air through which it circulates, connected the end to the lower part of the outside tub 3 through the circuit change valve 13 and the elastic lower bellows-like hose 14, and has connected the other end to the end of the blower 15 for desiccation. It connects with the warm air supply way 17 which has the heater 16 which is a heating means, and the other end of the blower 15 for desiccation passes along the up bellows-like hose 18, and constitutes the path through which it connects and circulates to an inner lift 4. The warm air ventilation means consists of a blower 15 for desiccation, and a heater 16.
[0007] The top face of the outside tub 3 is established for the tub covering 19 outside a wrap in the outside tub 3 in airtight, and opening of the warm air jet hole 20 from the elastic up bellows-like hose 18 is carried out to the outside [this] tub covering 19. Moreover, he forms the inside lid 21 in the outside [this] tub covering 19, enabling free closing motion, and is trying to take clothing in and out of it.
[0008] It has formed the feed valve 25 which supplies water to an inner lift 4 while the case covering 22 is a wrap thing, has the upper part of a case 1 for the closing motion lid 23, enabling free closing motion and forms a control unit 24. Moreover, the drain valve 26 which drains water is formed in the outside tub 3 at the pars basilaris ossis occipitalis of the outside tub 3. The blower 27 for cooling is attached in the side face of a case 1, and it is constituted so that the outside tub 3, a heat exchanger 12, etc. may be

cooled inside a case 1 and it can ventilate.
[0009] The control device 24 is constituted so that actuation of a motor 8, a clutch 9, the circuit change valve 13, the blower 15 for desiccation, a heater 16, a feed valve 25, a drain valve 26, the blower 27 for cooling, etc. may be controlled and each stroke of wash, a rinse, dehydration, and desiccation may be controlled.
[0010] Actuation is explained in the above-mentioned configuration. In a wash stroke, a motor 8 is driven, after opening a feed valve 25 and supplying water to predetermined water level, if the closing motion lid 23 and the inside lid 21 are opened, the washing, water or a molten bath, and a detergent are thrown into an inner lift 4 and operation is started. At this time, the power of a motor 8 is transmitted to a rotary wing 6 through a wash shaft with the clutch 9 of the transfer device section, and the washing is caught in the lobe 11 for churning of a rotary wing 6, and is drawn in a core because a rotary wing 6 rotates. The washing of the main lower layer section of an inner lift 4 is made the management of an inner lift 4 with the drawn washing. Thus, the washing in an inner lift 4 is agitated and it is performed by the washing or the mechanical power which acts by the wall of an inner lift 4, or contact to a rotary wing 6, and water flow power.
[0011] A dehydration stroke performs by separating moisture from the washing by switching to a clutch 9 of the transfer device section dehydration-side, making an inner lift 4 transmit and rotate the power of a motor 8 through a dehydration shaft, and giving a centrifugal force to the washing, after opening a drain valve 26 and draining the water in an inner lift 4 after wash termination.
[0012] In a desiccation stroke, it switches to a clutch 9 wash-side, a motor 8 is driven, it transmits to a rotary wing 6, and the washing which stuck to the wall of an inner lift 4 after dehydration is torn off by rotating normally quickly and reversing a rotary wing 6. Next, a drain valve 26 is closed and the circuit change valve 13 is opened. And warm air is sent to the warm air jet hole 20 with the warm air ventilation means constituted from a blower 15 for desiccation, and a heater 16, rotating normally and reversing a rotary wing 6, and hooking and agitating the washing by the lobe 11 for churning. After evaporating moisture from the washing and the warm air blown into the inner lift 4 from the warm air exhaust nozzle 20 appears from an inner lift 4 in the inside of the outside tub 3, it passes the lower bellows-like hose 14 and results to a heat exchanger 12.
[0013] When the warm air which took the moisture of the washing and contained moisture has passed through the inside of the wall of the outside tub 3, or a heat exchanger 12, the warm air to which dew condensation of moisture took place in the interior by cooling the outer wall of the outside tub 3 or a heat exchanger 12, and became wet with the inflow of the exterior air by the cooling blower 27 installed in the side face of a case 1 is dehumidified, and returns to the blower 15 for desiccation. By circulating warm air in this circuit, the desiccation object in an inner lift 4 can be dried.
[0014]
[Problem(s) to be Solved by the Invention] With such a conventional wash dryer, although the washing is agitated and it is dry in the desiccation stroke with normal rotation of a rotary wing 6, and reversal, circulating through warm air, only by churning by the rotary wing 6, the vertical location of the washing in an inner lift 4 cannot interchange easily, the drying mark is produced or the drying time starts for a long time. In order to shorten the drying time, it is desirable to increase normal rotation of a rotary wing 6 and the count of reversal, but since the washing becomes easy to be involved by churning, the drying mark and a wrinkling increase or the bruise of the washing by friction of a rotary wing 6 or the washing increases, it is not desirable.
[0015] While shortening the drying time and reducing the bruise of the washing, without this invention's solving such a conventional technical problem, and increasing normal rotation of the rotary wing in a desiccation stroke, and the count of reversal, it sets it as the 1st purpose to reduce the drying mark and a wrinkling.
[0016] Moreover, it is made easy to distribute the moisture contained in the washing in a desiccation stroke, and to evaporate, and while improving drying ability, it sets it as the 2nd purpose to reduce the drying mark and a wrinkling.
[0017]

[Means for Solving the Problem] This invention is supported for the inner lift which holds the washing in the outside tub which ****(ed) elastically in the case, enabling rotation free in order to attain the 1st purpose of the above. While preparing a rotary wing in the inner pars basilaris ossis occipitalis of an inner lift, enabling free rotation, driving an inner lift or a rotary wing by the driving means and ventilating in an inner lift with a ventilation means The air ventilated by the ventilation means is heated with a heating means. By the control means A driving means, It constitutes so that actuation of a ventilation means, a heating means, etc. may be controlled and each stroke of wash, a rinse, dehydration, and desiccation may be controlled, and it is made for a control means to drive an inner lift, driving a ventilation means in a dehydration stroke and ventilating in an inner lift.
[0018] While being able to shorten the drying time and reducing the bruise of the washing by this, without increasing normal rotation of the rotary wing in a desiccation stroke, and the count of reversal, the drying mark and a wrinkling can be reduced.
[0019] Moreover, the inner lift which holds the washing in the outside tub which ****(ed) elastically in the case is supported, enabling rotation free in order to attain the 2nd purpose. While preparing a rotary wing in the inner pars basilaris ossis occipitalis of an inner lift, enabling free rotation, driving an inner lift or a rotary wing by the driving means and ventilating in an inner lift with a ventilation means The air ventilated by the ventilation means is heated with a heating means. By the control means A driving means, It constitutes so that actuation of a ventilation means, a heating means, etc. may be controlled and each stroke of wash, a rinse, dehydration, and desiccation may be controlled. A control means After carrying out the predetermined time intermittent drive of the rotary wing, driving a ventilation means and a heating means and ventilating warm air in an inner lift in a desiccation stroke at least, it is made to perform the stroke which carries out the predetermined time drive of the inner lift once [at least].
[0020] It can be made easy to distribute the moisture contained in the washing in a desiccation stroke, and to evaporate by this, and while being able to improve drying ability, the drying mark and a wrinkling can be reduced.
[0021]
[Embodiment of the Invention] The outside tub which ****(ed) elastically invention of this invention according to claim 1 in the case, The inner lift which supports free [rotation] and holds the washing in said outside tub, and the rotary wing prepared in the inner pars basilaris ossis occipitalis of said inner lift free [rotation], The driving means which drives said inner lift or rotary wing, and a ventilation means to ventilate in said inner lift, A heating means to heat the air ventilated by said ventilation means, and said driving means, It has the control means which controls actuation of a ventilation means, a heating means, etc. and controls each stroke of wash, a rinse, dehydration, and desiccation. Said control means In order to carry out high-speed rotation of the inner lift at a dehydration rotational frequency etc., making it drive said inner lift, driving said ventilation means in a dehydration stroke, and ventilating in said inner lift, and ventilating in an inner lift in a dehydration stroke, In the desiccation stroke the moisture contained in the washing distributes by ventilation, and it becomes easy to escape from it, it can improve the dehydration engine performance, and is [stroke] degree stroke The drying time can be shortened, without increasing normal rotation of a rotary wing, and the count of reversal, and the bruise of the washing by friction of a rotary wing or the washing can be reduced. Moreover, while being able to improve the dehydration engine performance when not performing the desiccation stroke of degree stroke, and the moisture contained in the washing in a dehydration stroke distributes by ventilation, a result condition can dehydrate with sufficient aesthetic property.
[0022] Invention according to claim 2 is set to invention given in above-mentioned claim 1. A control means In order to carry out high-speed rotation of the inner lift at a dehydration rotational frequency etc., making it drive an inner lift, driving a heating means in addition to a ventilation means, and ventilating warm air in an inner lift in a dehydration stroke, and ventilating warm air in an inner lift in a dehydration stroke, In the desiccation stroke which the moisture contained in the washing distributes by warm air, it becomes easy to evaporate, and warm air can, in addition, improve further the surroundings and the dehydration engine performance which becomes empty for the whole washing, and is degree stroke While being able to shorten the drying time and being able to reduce the bruise of the washing by

friction of a rotary wing or the washing, without increasing normal rotation of a rotary wing, and the count of reversal, the drying mark and the wrinkling by churning can be reduced. Moreover, when not performing the desiccation stroke of degree stroke, and the moisture contained in the washing distributes and evaporates by warm air in a dehydration stroke, a result condition can dehydrate with sufficient aesthetic property.

[0023] Invention according to claim 3 is set to invention given in above-mentioned claims 1 or 2. A control means After carrying out the predetermined time drive of the inner lift and stopping, it is made to repeat the stroke which drives said inner lift further. In case ventilation or warm air is driven in a dehydration stroke and an inner lift is driven at a dehydration rotational frequency etc. with delivery, by repeating a drive at an EQC or the rotational frequency beyond it The moisture contained in the washing distributes, and becomes easy to evaporate in ventilation or warm air, the dehydration engine performance can be improved further, in addition in the case of warm air, since the time amount around which a wind turns to the whole washing becomes long, the dehydration engine performance can be improved further. For this reason, in the desiccation stroke of degree stroke, while being able to shorten the drying time and being able to reduce the bruise of the washing by friction of a rotary wing or the washing, without increasing normal rotation of a rotary wing, and the count of reversal, the drying mark and the wrinkling by churning can be reduced.

[0024] Invention according to claim 4 is set to invention given in above-mentioned claim 3. A control means After carrying out the predetermined time drive of the inner lift, stopping, carrying out the predetermined time intermittent drive of the rotary wing, agitating and ******(ing) the washing and performing a stroke It is made to repeat the stroke which drives said inner lift. In a dehydration stroke After [which agitates ventilation or warm air by the rotary wing in case high-speed rotation of the inner lift is carried out at a dehydration rotational frequency etc. with delivery] ******(ing) and performing a stroke, by repeating rotation at an EQC or the rotational frequency beyond it Since the location of the washing can ******, it can be exchanged in a stroke and dispersion in the moisture contained can be reduced It distributes to homogeneity, and becomes easy to evaporate in ventilation or warm air in it, and the dehydration engine performance can be improved further. In addition, in the case of warm air It ****** and the washing interchanges in a stroke, and since a wind turns to the whole by high-speed rotation of an inner lift, changing the location where warm air hits, the dehydration engine performance can be improved further. For this reason, in the desiccation stroke of degree stroke, while being able to shorten the drying time and being able to reduce the bruise of the washing by friction of a rotary wing or the washing, without increasing normal rotation of a rotary wing, and the count of reversal, the drying mark and the wrinkling by churning can be reduced. Moreover, the ball up of the washing to the wall of the inner lift by high-speed prolonged rotation can be lessened, and the drying mark and a wrinkling can be reduced further.

[0025] The inner lift which supports invention according to claim 5 free [rotation] in the outside tub which ****(ed) elastically in the case, and said outside tub, and holds the washing, The driving means which drives the rotary wing prepared in the inner pars basilaris ossis occipitalis of said inner lift free [rotation], and said inner lift or rotary wing, A ventilation means to ventilate in said inner lift, and a heating means to heat the air ventilated by said ventilation means, It has the control means which controls actuation of said driving means, a ventilation means, a heating means, etc., and controls each stroke of wash, a rinse, dehydration, and desiccation. Said control means After carrying out the predetermined time intermittent drive of said rotary wing, driving said ventilation means and a heating means, and ventilating warm air in said inner lift in a desiccation stroke at least, It is made to perform the stroke which carries out the predetermined time drive of said inner lift once [at least]. In a desiccation stroke In the place where the temperature of the washing got warm while agitating by the rotary wing, warm air by carrying out high-speed rotation of the inner lift at a dehydration rotational frequency etc. with delivery Since a wind turns to the whole by high-speed rotation of an inner lift, the moisture contained in the washing distributing to the whole, becoming easy to evaporate in it, and being able to improve drying ability, in addition replacing the washing by churning of a rotary wing, and changing the location where warm air hits, While being able to improve drying ability further, the ball

up of the washing to the wall of an inner lift can be lost by churning of a rotary wing, and the drying mark and a wrinkling can be reduced. Moreover, after carrying out the predetermined time intermittent drive of the rotary wing, driving a ventilation means and a heating means and ventilating warm air in an inner lift in a dehydration stroke, while the moisture contained in the washing by carrying out the predetermined time drive of the inner lift distributes to the whole, becomes easy to evaporate in it and being able to improve the dehydration engine performance, a result condition can dehydrate with sufficient aesthetic property.

[0026] Invention according to claim 6 equips above-mentioned claims 1-5 with a clothes volume detection means to detect the amount of the washing in an inner lift, in invention of a publication. A control means Since the drive time amount or the count of a drive of an inner lift is changed and the time amount and the count of high-speed rotation of an inner lift are changed according to the amount of the washing according to the amount of the detected washing, When there is little washing, it is short in the time amount of high-speed rotation, and by setting up a count few, the ball up of the washing to the inner lift wall by high-speed rotation can be lessened, and the wrinkling of the washing can be reduced. Moreover, when there is much washing, it is long in the time amount of high-speed rotation, and by setting up many counts, the dehydration engine performance can be raised and the drying time can be shortened.

[0027]

[Example] Hereafter, the example of this invention is explained, referring to a drawing. In addition, the thing of the same configuration as the conventional example attaches the same sign, and omits explanation.

[0028] (Example 1) To be shown in drawing 1 and drawing 2 , a control device 28 has the control means 29 constituted from a microcomputer, controls actuation of a motor (driving means) 8, a clutch 9, the circuit change valve 13, the blower 15 for desiccation (ventilation means), a heater (heating means) 16, a feed valve 25, a drain valve 26, the blower 27 for cooling, etc. through the power switching means 30, and controls each stroke of wash, a rinse, dehydration, and desiccation. The input setting means 31 performs a setup of an operation course etc., the start of operation, a halt, etc., and a control means 29 inputs the information from the input setting means 31, expresses it as the display means 32 based on the information, and it tells a user about it.

[0029] At least water detected the water level in an inner lift 4, and the detection means 33 has inputted the output into the control means 29. The storage means 34 has memorized data required to control by the control means 29. The clothes volume detection means 35 detects the amount of the washing thrown in in the inner lift 4, where the washing is thrown in in an inner lift 4, after it carries out predetermined time ON and drives a motor 8, detected the amount of the washing by change of the motor 8 when turning off a motor 8, or the inertia rotational frequency of an inner lift 4, and has inputted the output into the control means 29. In addition, 36 is a source power supply and 37 is an electric power switch.

[0030] A control means 29 drives the blower 15 for desiccation in a dehydration stroke, and he is trying to drive an inner lift 4 by the motor 8, when setting up a "wash desiccation continuous-running course" with the input setting means 31, controlling a series of strokes of wash, a rinse, dehydration, and desiccation and performing a desiccation stroke in degree stroke of a dehydration stroke, ventilating in an inner lift 4.

[0031] Moreover, it supposes that it is a control means 29 like that previous line, it is made to perform a dehydration stroke, and drives the blower 15 for desiccation in the dehydration stroke at this time, and he is trying to drive an inner lift 4 by the motor 8, when setting up "only desiccation is an operation course" with the input setting means 31 and performing only a desiccation stroke, ventilating in an inner lift 4. Other configurations are the same as the conventional example.

[0032] Actuation is explained in the above-mentioned configuration. In a wash stroke, a motor 8 is driven, after opening a feed valve 25 and supplying water to predetermined water level, if open the closing motion lid 23 and the inside lid 21, the washing, water or a molten bath, and a detergent are thrown into an inner lift 4, an electric power switch 37 is turned on and the start switch (not shown) of the input setting means 31 is turned on.

[0033] At this time, the power of a motor 8 is transmitted to a rotary wing 6 through a wash shaft with the clutch 9 of the transfer device section, and the washing is caught in the lobe 11 for churning of a rotary wing 6, and is drawn in a core because a rotary wing 6 rotates. The washing of the main lower layer section of an inner lift 4 is made the management of an inner lift 4 with the drawn washing. Thus, the washing in an inner lift 4 is agitated and it is performed by the washing or the mechanical power which acts by the wall of an inner lift 4, or contact to a rotary wing 6, and water flow power.
[0034] A dehydration stroke performs by separating moisture from the washing by switching to a clutch 9 of the transfer device section dehydration-side, making an inner lift 4 transmit and rotate the power of a motor 8 through a dehydration shaft, and giving a centrifugal force to the washing, after opening a drain valve 26 and draining the water in an inner lift 4 after wash termination.
[0035] In a desiccation stroke, it switches to a clutch 9 wash-side, a motor 8 is driven, it transmits to a rotary wing 6, and the washing which stuck to the wall of an inner lift 4 after dehydration is torn off by rotating normally quickly and reversing a rotary wing 6. Next, a drain valve 26 is closed and the circuit change valve 13 is opened. And warm air is sent to the warm air jet hole 20 with the warm air ventilation means constituted from a blower 15 for desiccation, and a heater 16, rotating normally and reversing a rotary wing 6, and hooking and agitating the washing by the lobe 11 for churning. After evaporating moisture from the washing and the warm air blown into the inner lift 4 from the warm air exhaust nozzle 20 appears from an inner lift 4 in the inside of the outside tub 3, it passes the lower bellows-like hose 14 and results to a heat exchanger 12.
[0036] When the warm air which took the moisture of the washing and contained moisture has passed through the inside of the wall of the outside tub 3, or a heat exchanger 12, the warm air to which dew condensation of moisture took place in the interior by cooling the outer wall of the outside tub 3 or a heat exchanger 12, and became wet with the inflow of the exterior air by the cooling blower 27 installed in the side face of a case 1 is dehumidified, and returns to the blower 15 for desiccation. By circulating warm air in this circuit, the desiccation object in an inner lift 4 can be dried.
[0037] Here, when starting operation, actuation of the dehydration stroke in the case of having set up the "wash desiccation continuous-running course" with the input setting means 31 is explained, referring to drawing 3 .
[0038] Distinguishing whether the desiccation stroke is set as degree stroke at step 41, progressing to step 42, when the desiccation stroke is set up, turning on the blower 15 for desiccation, and ventilating in an inner lift 4, if a dehydration stroke is started at step 40, as shown in drawing 3 , device transfer is switched to a dehydration side with a clutch 9, a motor 8 is turned on, and high-speed rotation of the inner lift 4 is carried out at a dehydration rotational frequency.
[0039] If predetermined time (dehydration time amount) passes at step 43, the blower 15 for desiccation is turned off at step 44, will suspend ventilation into an inner lift 4, it will be made to return to a device transfer wash-side with a clutch 9, a motor 8 will be turned off, an inner lift 4 will be stopped, and it will progress to degree stroke (desiccation stroke) at step 45.
[0040] When the desiccation stroke is not set as degree stroke at step 41, it progresses to step 46. If device transfer is switched to a dehydration side with a clutch 9, turn on a motor 8, high-speed rotation of the inner lift 4 is carried out at a dehydration rotational frequency, the usual dehydration stroke is performed and predetermined time (dehydration time amount) passes at step 47 By step 48, it is made to return to a device transfer wash-side with a clutch 9, and a motor 8 is turned off, an inner lift 4 is stopped, and a dehydration stroke is ended at step 49.
[0041] When starting operation and "only desiccation is an operation course" is set up with the input setting means 31 next, it supposes that it is that previous line, a dehydration stroke is performed, and the dehydration stroke at this time operates step 40 to the step 45 of drawing 3 .
[0042] Thus, in order to carry out high-speed rotation of the inner lift 4 at a dehydration rotational frequency according to this example, driving the blower 15 for desiccation in a dehydration stroke, and ventilating in an inner lift 4, In the desiccation stroke the moisture contained in the washing distributes by ventilation, and it becomes easy to escape from it, it can improve the dehydration engine performance, and is [stroke] degree stroke The drying time can be shortened, without increasing

normal rotation of a rotary wing 6, and the count of reversal, and the bruise of the washing by friction of a rotary wing 6 or the washing can be reduced.
[0043] In addition, although high-speed rotation of the inner lift 4 is carried out at a dehydration rotational frequency at this example, without ventilating in an inner lift 4 when the desiccation stroke is not set as degree stroke While being able to improve the dehydration engine performance, ventilating in an inner lift 4 when the moisture contained in the washing in a dehydration stroke by carrying out high-speed rotation of the inner lift 4 distributes by ventilation even when not performing the desiccation stroke of degree stroke, a result condition can dehydrate with sufficient aesthetic property.
[0044] When the control means 29 shown in drawing 2 sets up a "wash desiccation continuous-running course" with the input setting means 31, a series of strokes of wash, a rinse, dehydration, and desiccation are controlled and a desiccation stroke is performed in degree stroke of a dehydration stroke, (Example 2) The blower 15 for desiccation and a heater 16 are driven in a dehydration stroke, and he is trying to drive an inner lift 4 by the motor 8, ventilating warm air in an inner lift 4.
[0045] Moreover, it supposes that it is a control means 29 like that previous line, it is made to perform a dehydration stroke, and drives the blower 15 for desiccation, and a heater 16 in the dehydration stroke at this time, and he is trying to drive an inner lift 4 by the motor 8, when setting up "only desiccation is an operation course" with the input setting means 31 and performing only a desiccation stroke, ventilating warm air in an inner lift 4. Other configurations are the same as the above-mentioned example 1.
[0046] Actuation of the dehydration stroke in the case of having set up the "wash desiccation continuous-running course" with the input setting means 31 in the above-mentioned configuration is explained referring to drawing 4 . In addition, since other actuation is the same as actuation of the above-mentioned example 1, explanation is omitted.
[0047] If a dehydration stroke is started at step 40 as shown in drawing 4 , it will distinguish whether the desiccation stroke is set as degree stroke at step 41. Progressing to step 50, when the desiccation stroke is set up, turning on the blower 15 for desiccation, and a heater 16, and ventilating warm air in an inner lift 4, device transfer is switched to a dehydration side with a clutch 9, a motor 8 is turned on, and high-speed rotation of the inner lift 4 is carried out at a dehydration rotational frequency.
[0048] If predetermined time passes at step 43, the blower 15 for desiccation and a heater 16 are turned off at step 51, will stop the warm air into an inner lift 4, it will be made to return to a device transfer wash-side with a clutch 9, a motor 8 will be turned off, an inner lift 4 will be stopped, and it will progress to degree stroke (desiccation stroke) at step 45.
[0049] When the desiccation stroke is not set as degree stroke at step 41 Like the above-mentioned example 1, progress to step 46 and device transfer is switched to a dehydration side with a clutch 9. If turn on a motor 8, high-speed rotation of the inner lift 4 is carried out at a dehydration rotational frequency, the usual dehydration stroke is performed and predetermined time (dehydration time amount) passes at step 47 By step 48, it is made to return to a device transfer wash-side with a clutch 9, and a motor 8 is turned off, an inner lift 4 is stopped, and a dehydration stroke is ended at step 49.
[0050] When starting operation and "only desiccation is an operation course" is set up with the input setting means 31 next, it supposes that it is that previous line, a dehydration stroke is performed, and the dehydration stroke at this time operates steps 40, 41, 50, 43, 51, and 45 of drawing 4 .
[0051] Thus, since high-speed rotation of the inner lift 4 is carried out at a dehydration rotational frequency according to this example, driving the blower 15 for desiccation, and a heater 16 in a dehydration stroke, and ventilating warm air in an inner lift 4, the moisture contained in the washing distributes by warm air, it becomes easy to evaporate, and, in addition, warm air can improve further the surroundings and the dehydration engine performance which becomes empty for the whole washing. For this reason, in the desiccation stroke of degree stroke, while being able to shorten the drying time and being able to reduce the bruise of the washing by friction of a rotary wing or the washing, without increasing normal rotation of a rotary wing 6, and the count of reversal, the drying mark and the wrinkling by churning can be reduced.
[0052] In addition, although high-speed rotation of the inner lift 4 is carried out at a dehydration rotational frequency at this example, without ventilating warm air in an inner lift 4 when the desiccation

stroke is not set as degree stroke While being able to improve the dehydration engine performance, ventilating warm air in an inner lift 4 when the moisture contained in the washing distributes and evaporates by warm air in a dehydration stroke by carrying out high-speed rotation of the inner lift 4 even when not performing the desiccation stroke of degree stroke A result condition can dehydrate with sufficient aesthetic property.

[0053] When the control means 29 shown in drawing 2 sets up a "wash desiccation continuous-running course" with the input setting means 31, a series of strokes of wash, a rinse, dehydration, and desiccation are controlled and a desiccation stroke is performed in degree stroke of a dehydration stroke, (Example 3) The blower 15 for desiccation and a heater 16 are driven in a dehydration stroke, and after driving an inner lift 4 by the motor 8 and stopping, ventilating warm air in an inner lift 4, he is trying to repeat the stroke which drives an inner lift 4 further.

[0054] Moreover, when a control means 29 sets up "only desiccation is an operation course" with the input setting means 31 and only a desiccation stroke is performed, It supposes that it is that previous line, and is made to perform a dehydration stroke, and the blower 15 for desiccation and a heater 16 are driven in the dehydration stroke at this time, and after driving an inner lift 4 by the motor 8 and stopping, ventilating warm air in an inner lift 4, he is trying to repeat the stroke which drives an inner lift 4 further. Other configurations are the same as the above-mentioned example 1.

[0055] Actuation of the dehydration stroke in the case of having set up the "wash desiccation continuous-running course" with the input setting means 31 in the above-mentioned configuration is explained referring to drawing 5 . In addition, since other actuation is the same as actuation of the above-mentioned example 1, explanation is omitted.

[0056] If a dehydration stroke is started at step 40 as shown in drawing 5 , it will distinguish whether the desiccation stroke is set as degree stroke at step 41. Progressing to step 50, when the desiccation stroke is set up, turning on the blower 15 for desiccation, and a heater 16, and ventilating warm air in an inner lift 4, device transfer is switched to a dehydration side with a clutch 9, a motor 8 is turned on, and high-speed rotation of the inner lift 4 is carried out at a dehydration rotational frequency.

[0057] If a motor 8 will be turned off at step 53, an inner lift 4 will be stopped, if the 1st predetermined time passes at step 52, and the 2nd predetermined time passes at step 54, a motor 8 will be turned on at step 55 and an inner lift 4 will be driven. If a halt of an inner lift 4 and a drive are repeated once [count of predetermined n] at step 56, it will progress to step 51, and the blower 15 for desiccation and a heater 16 are turned off, stop the warm air into an inner lift 4, it is made to return to a device transfer wash-side with a clutch 9, a motor 8 is turned off, an inner lift 4 is stopped, and it progresses to degree stroke (desiccation stroke) at step 45.

[0058] When the desiccation stroke is not set as degree stroke at step 41 Like the above-mentioned example 1, progress to step 46 and device transfer is switched to a dehydration side with a clutch 9. If turn on a motor 8, high-speed rotation of the inner lift 4 is carried out at a dehydration rotational frequency, the usual dehydration stroke is performed and predetermined time (dehydration time amount) passes at step 47 By step 48, it is made to return to a device transfer wash-side with a clutch 9, and a motor 8 is turned off, an inner lift 4 is stopped, and a dehydration stroke is ended at step 49.

[0059] When starting operation and "only desiccation is an operation course" is set up with the input setting means 31 next, it supposes that it is that previous line, a dehydration stroke is performed, and the dehydration stroke at this time performs steps 40, 41, 50, 52-56 of drawing 5 , and actuation of 51 and 45.

[0060] Thus, after carrying out the predetermined time drive of the inner lift 4 and stopping, in order to repeat the stroke which drives an inner lift 4 further according to this example, driving the blower 15 for desiccation, and a heater 16 in a dehydration stroke, and ventilating warm air in an inner lift 4, The moisture contained in the washing distributes, and becomes easy to evaporate in ventilation or warm air, the dehydration engine performance can be improved further, in addition in the case of warm air, since the time amount around which a wind turns to the whole washing becomes long, the dehydration engine performance can be improved further. For this reason, in the desiccation stroke of degree stroke, while being able to shorten the drying time and being able to reduce the bruise of the washing by friction of a

rotary wing 6 or the washing, without increasing normal rotation of a rotary wing 6, and the count of reversal, the drying mark and the wrinkling by churning can be reduced.
[0061] In addition, although high-speed rotation of the inner lift 4 is carried out at a dehydration rotational frequency at this example, without ventilating warm air in an inner lift 4 when the desiccation stroke is not set as degree stroke While being able to improve the dehydration engine performance, ventilating warm air in an inner lift 4 when the moisture contained in the washing distributes and evaporates by warm air in a dehydration stroke by carrying out high-speed rotation of the inner lift 4 even when not performing the desiccation stroke of degree stroke A result condition can dehydrate with sufficient aesthetic property.
[0062] Moreover, although the blower 15 for desiccation and a heater 16 are driven in a dehydration stroke and warm air is ventilated in an inner lift 4 in this example, it is also good to drive only the blower 15 for desiccation and to ventilate in an inner lift 4.
[0063] When the control means 29 shown in drawing 2 sets up a "wash desiccation continuous-running course" with the input setting means 31, a series of strokes of wash, a rinse, dehydration, and desiccation are controlled and a desiccation stroke is performed in degree stroke of a dehydration stroke, (Example 4) After driving an inner lift 4 by the motor 8 and stopping, driving the blower 15 for desiccation, and a heater 16 in a dehydration stroke, and ventilating warm air in an inner lift 4, After ******(ing) and performing a stroke, he is trying to repeat the stroke which carries out the predetermined time intermittent drive of the rotary wing 6, and agitates the washing and which drives an inner lift 4.
[0064] Moreover, when a control means 29 sets up "only desiccation is an operation course" with the input setting means 31 and only a desiccation stroke is performed, Suppose that it is that previous line, are made to perform a dehydration stroke, and the blower 15 for desiccation and a heater 16 are driven in the dehydration stroke at this time. After driving an inner lift 4 by the motor 8 and stopping, ventilating warm air in an inner lift 4, he is trying to repeat the stroke which carries out the predetermined time intermittent drive of the rotary wing 6, and agitates the washing and which drives an inner lift 4, after ******(ing) and performing a stroke. Other configurations are the same as the above-mentioned example 1.
[0065] Actuation of the dehydration stroke in the case of having set up the "wash desiccation continuous-running course" with the input setting means 31 in the above-mentioned configuration is explained referring to drawing 6 . In addition, since other actuation is the same as actuation of the above-mentioned example 1, explanation is omitted.
[0066] If a dehydration stroke is started at step 40 as shown in drawing 6 , it will distinguish whether the desiccation stroke is set as degree stroke at step 41. Progressing to step 50, when the desiccation stroke is set up, turning on the blower 15 for desiccation, and a heater 16, and ventilating warm air in an inner lift 4, device transfer is switched to a dehydration side with a clutch 9, a motor 8 is turned on, and high-speed rotation of the inner lift 4 is carried out at a dehydration rotational frequency.
[0067] If make it return to a device transfer wash-side with a clutch 9 at step 58 when the 1st predetermined time passes at step 57, and a motor 8 is turned off, an inner lift 4 is stopped and the 2nd predetermined time passes at step 59, at step 60, the predetermined time intermittent drive of the rotary wing 6 will be carried out, the washing will be agitated and ******(ed), and a stroke will be performed.
[0068] After ******(ing) at step 61 and completing a stroke, device transfer is switched to a dehydration side with a clutch 9 at step 62, a motor 8 is turned on, and an inner lift 4 is driven. By step 63, if it repeats twice [count of predetermined n], it will progress to step 51, and the blower 15 for desiccation and a heater 16 are turned off, stop the warm air into an inner lift 4, it is made to return to a device transfer wash-side with a clutch 9, a motor 8 is turned off, an inner lift 4 is stopped, and it progresses to degree stroke (desiccation stroke) at step 45.
[0069] When the desiccation stroke is not set as degree stroke at step 41 Like the above-mentioned example 1, progress to step 46 and device transfer is switched to a dehydration side with a clutch 9. If turn on a motor 8, high-speed rotation of the inner lift 4 is carried out at a dehydration rotational frequency, the usual dehydration stroke is performed and predetermined time (dehydration time amount) passes at step 47 By step 48, it is made to return to a device transfer wash-side with a clutch 9, and a

motor 8 is turned off, an inner lift 4 is stopped, and a dehydration stroke is ended at step 49.
[0070] When starting operation and "only desiccation is an operation course" is set up with the input setting means 31 next, it supposes that it is that previous line, a dehydration stroke is performed, and the dehydration stroke at this time performs steps 40, 41, 50, 57-63 of drawing 6 , and actuation of 51 and 45.
[0071] Thus, driving the blower 15 for desiccation, and a heater 16 in a dehydration stroke, and ventilating warm air in an inner lift 4 according to this example After carrying out the predetermined time drive of the inner lift 4, stopping, ******(ing) and performing a stroke, in order to repeat the stroke which carries out the predetermined time intermittent drive of the rotary wing 6, and agitates the washing and which drives an inner lift 4, Since the location of the washing can ******, it can be exchanged in a stroke and dispersion in the moisture contained can be reduced It distributes to homogeneity, and becomes easy to evaporate in ventilation or warm air in it, and the dehydration engine performance can be improved further. In addition, in the case of warm air It ****** and the washing interchanges in a stroke, and since a wind turns to the whole by high-speed rotation of an inner lift 4, changing the location where warm air hits, the dehydration engine performance can be improved further.

[0072] For this reason, in the desiccation stroke of degree stroke, while being able to shorten the drying time and being able to reduce the bruise of the washing by friction of a rotary wing 6 or the washing, without increasing normal rotation of a rotary wing 6, and the count of reversal, the drying mark and the wrinkling by churning can be reduced. Moreover, the ball up of the washing to the wall of the inner lift 4 by high-speed prolonged rotation can be lessened, and the drying mark and a wrinkling can be reduced further.
[0073] In addition, although high-speed rotation of the inner lift 4 is carried out at a dehydration rotational frequency at this example, without ventilating warm air in an inner lift 4 when the desiccation stroke is not set as degree stroke While being able to improve the dehydration engine performance, ventilating warm air in an inner lift 4 when the moisture contained in the washing distributes and evaporates by warm air in a dehydration stroke by carrying out high-speed rotation of the inner lift 4 even when not performing the desiccation stroke of degree stroke A result condition can dehydrate with sufficient aesthetic property.
[0074] Moreover, although the blower 15 for desiccation and a heater 16 are driven in a dehydration stroke and warm air is ventilated in an inner lift 4 in this example, it is also good to drive only the blower 15 for desiccation and to ventilate in an inner lift 4.
[0075] (Example 5) The control means 29 shown in drawing 2 is made to perform the stroke which carries out the predetermined time drive of the inner lift 4 N times, after carrying out the predetermined time intermittent drive of the rotary wing 6, driving the blower 15 for desiccation, and a heater 16, and ventilating warm air in an inner lift 4 in a desiccation stroke. Other configurations are the same as the above-mentioned example 1.
[0076] Actuation of a desiccation stroke is explained referring to drawing 7 in the above-mentioned configuration. In addition, since other actuation is the same as actuation of the above-mentioned example 1, explanation is omitted. However, actuation of a dehydration stroke may be one actuation of the above-mentioned examples 2-4, and may be actuation of the usual dehydration stroke which carries out high-speed rotation of the inner lift 4 at a dehydration rotational frequency.
[0077] Turning on the blower 15 for desiccation, and a heater 16 at step 65, and ventilating warm air in an inner lift 4, if a desiccation stroke is started at step 64, as shown in drawing 7 , a motor 8 is turned on at step 66 (forward rotation), and a rotary wing 6 is rotated in the forward direction. When a motor 8 will be turned off at step 68, a rotary wing 6 will be stopped, if time amount t1 passes at step 67, and time amount t2 passes at step 69, a motor 8 is turned on at step 70 (inverse rotation), and hard flow is made to rotate a rotary wing 6.
[0078] Next, if time amount t1 passes at step 71, a motor 8 will be turned off at step 72 and a rotary wing 6 will be stopped. If time amount t2 passes at step 73, the temperature of the washing will be raised by warm air, carrying out the intermittent drive of the rotary wing 6, and agitating by the rotary

wing 6 until the 3rd predetermined time passes at step 74.
[0079] If the 3rd predetermined time passes at step 74, device transfer will be switched to a dehydration side with a clutch 9 at step 75, a motor 8 will be turned on, and high-speed rotation of the inner lift 4 will be carried out at a dehydration rotational frequency. If the 4th predetermined time passes at step 76, it will be made to return to a device transfer wash-side with a clutch 9 at step 77, a motor 8 will be turned off, and an inner lift 4 will be stopped. This actuation is repeated at step 78, and it repeats until a count is set to N.
[0080] Then, the washing which stuck to the wall of an inner lift 4 is torn off and agitated by carrying out high-speed rotation of the inner lift 4 by rotating normally quickly and reversing a rotary wing 6 between the 3rd predetermined time at step 87 from step 79. Then, the blower 15 for desiccation and a heater 16 are turned off at step 88, and a desiccation stroke is ended at step 89.
[0081] Thus, by carrying out N time repetition operation of the stroke which carries out high-speed rotation of the inner lift 4, after the 3rd carries out predetermined time churning by the rotary wing 6 according to this example, circulating warm air and drying In the place where the temperature of the washing got warm by churning of a rotary wing 6 at the time of desiccation, since high-speed rotation of the inner lift 4 is carried out for warm air with delivery, the moisture contained in the washing distributes to the whole, and becomes easy to evaporate in it, and drying ability can be improved.
[0082] In addition, the washing is replaced by churning of a rotary wing 6, since a wind turns to the whole by high-speed rotation of an inner lift 4, while being able to improve drying ability further, changing the location where warm air hits, the ball up of the washing to the wall of an inner lift 4 can be lost by churning of a rotary wing 6, and the drying mark and a wrinkling can be reduced.
[0083] In addition, although it is made to carry out N time repetition operation of the stroke which carries out high-speed rotation of the inner lift 4 in this example after carrying out the predetermined time intermittent drive of the rotary wing 6, driving the blower 15 for desiccation, and a heater 16, and ventilating warm air in an inner lift 4, the count of a repetition should just be 1 time taken few.
[0084] Moreover, although the stroke which carries out high-speed rotation of the inner lift 4 is repeated once [at least] and he is trying to operate in this example after carrying out the predetermined time intermittent drive of the rotary wing 6, driving the blower 15 for desiccation, and a heater 16, and ventilating warm air in an inner lift 4 in a desiccation stroke After carrying out the predetermined time intermittent drive of the rotary wing 6, ventilating warm air in an inner lift 4 in a dehydration stroke, by carrying out the predetermined time drive of the inner lift 4 While the moisture contained in the washing distributes to the whole, becomes easy to evaporate in it and being able to improve the dehydration engine performance, a result condition can dehydrate with sufficient aesthetic property.
[0085] (Example 6) He is trying for the control means 29 shown in drawing 2 to change the drive time amount or the count of a drive when carrying out high-speed rotation of the inner lift 4 according to the amount of the washing detected with the clothes volume detection means 35. Other configurations are the same as the above-mentioned examples 1-5.
[0086] Actuation is explained in the above-mentioned configuration. A control means 29 changes the drive time amount or the count of a drive when carrying out high-speed rotation of the inner lift 4 in a dehydration stroke or a desiccation stroke according to some of inputs of the washing detected with the clothes volume detection means 35, i.e., when there is little washing, it is short in the time amount of high-speed rotation, and a count is set up few, when there is much washing, it is long in the time amount of high-speed rotation, and it sets up many counts.
[0087] Consequently, when there are few amounts of the washing, it is short in the time amount of high-speed rotation, and by setting up a count few, the ball up of the washing to the wall of the inner lift 4 by high-speed rotation can be lessened, and the wrinkling of the washing can be reduced. Moreover, when there are many amounts of the washing, it is long in the time amount of high-speed rotation, and by setting up many counts, the dehydration engine performance can be raised and the drying time can be shortened.
[0088]
[Effect of the Invention] The outside tub which ****(ed) elastically in the case as mentioned above

according to invention of this invention according to claim 1, The inner lift which supports free [rotation] and holds the washing in said outside tub, and the rotary wing prepared in the inner pars basilaris ossis occipitalis of said inner lift free [rotation], The driving means which drives said inner lift or rotary wing, and a ventilation means to ventilate in said inner lift, A heating means to heat the air ventilated by said ventilation means, and said driving means, It has the control means which controls actuation of a ventilation means, a heating means, etc. and controls each stroke of wash, a rinse, dehydration, and desiccation. Said control means Since it was made to drive said inner lift, having driven said ventilation means in the dehydration stroke, and ventilating in said inner lift, the moisture contained in the washing distributes by ventilation, and become easy to escape, and can improve and the dehydration engine performance is set in a desiccation stroke. The drying time can be shortened, without increasing normal rotation of a rotary wing, and the count of reversal, and the bruise of the washing by friction of a rotary wing or the washing can be reduced.

[0089] According to invention according to claim 2, moreover, a control means Driving a heating means in addition to a ventilation means, and ventilating warm air in an inner lift in a dehydration stroke Since it was made to drive an inner lift, the moisture contained in the washing distributes and becomes easy to evaporate in warm air, and in addition, warm air can improve further for the whole washing, and sets for it the surroundings and the dehydration engine performance which becomes empty at a desiccation stroke. While being able to shorten the drying time and being able to reduce the bruise of the washing by friction of a rotary wing or the washing, without increasing normal rotation of a rotary wing, and the count of reversal, the drying mark and the wrinkling by churning can be reduced.

[0090] According to invention according to claim 3, moreover, a control means Since it was made to repeat the stroke which drives said inner lift further after carrying out the predetermined time drive of the inner lift and stopping The moisture contained in the washing distributes, and becomes easy to evaporate in ventilation or warm air, the dehydration engine performance can be improved further, in addition in the case of warm air, since the time amount around which a wind turns to the whole washing becomes long, the dehydration engine performance can be improved further. For this reason, in a desiccation stroke, while being able to shorten the drying time and being able to reduce the bruise of the washing by friction of a rotary wing or the washing, without increasing normal rotation of a rotary wing, and the count of reversal, the drying mark and the wrinkling by churning can be reduced.

[0091] According to invention according to claim 4, moreover, a control means After carrying out the predetermined time drive of the inner lift, stopping, carrying out the predetermined time intermittent drive of the rotary wing, agitating and ******(ing) the washing and performing a stroke Since it was made to repeat the stroke which drives said inner lift, and the location of the washing can ******, it can be exchanged in a stroke and dispersion in the moisture contained can be reduced It distributes to homogeneity, and becomes easy to evaporate in ventilation or warm air in it, and the dehydration engine performance can be improved further. In addition, in the case of warm air It ****** and the washing interchanges in a stroke, and since a wind turns to the whole by high-speed rotation of an inner lift, changing the location where warm air hits, the dehydration engine performance can be improved further. For this reason, in a desiccation stroke, while being able to shorten the drying time and being able to reduce the bruise of the washing by friction of a rotary wing or the washing, without increasing normal rotation of a rotary wing, and the count of reversal, the drying mark and the wrinkling by churning can be reduced. Moreover, the ball up of the washing to the wall of the inner lift by high-speed prolonged rotation can be lessened, and the drying mark and a wrinkling can be reduced further.

[0092] Moreover, the outside tub which ****(ed) elastically in the case according to invention according to claim 5, The inner lift which supports free [rotation] and holds the washing in said outside tub, and the rotary wing prepared in the inner pars basilaris ossis occipitalis of said inner lift free [rotation], The driving means which drives said inner lift or rotary wing, and a ventilation means to ventilate in said inner lift, A heating means to heat the air ventilated by said ventilation means, and said driving means, It has the control means which controls actuation of a ventilation means, a heating means, etc. and controls each stroke of wash, a rinse, dehydration, and desiccation. Said control means After carrying out the predetermined time intermittent drive of said rotary wing, driving said ventilation

means and a heating means, and ventilating warm air in said inner lift in a desiccation stroke at least, Since it was made to perform the stroke which carries out the predetermined time drive of said inner lift once [at least] Since a wind turns to the whole by high-speed rotation of an inner lift, the moisture contained in the washing distributing to the whole, becoming easy to evaporate in it, and being able to improve drying ability, in addition replacing the washing by churning of a rotary wing, and changing the location where warm air hits, While being able to improve drying ability further, the ball up of the washing to the wall of an inner lift can be lost by churning of a rotary wing, and the drying mark and a wrinkling can be reduced.

[0093] According to invention according to claim 6, it has a clothes volume detection means to detect the amount of the washing in an inner lift. Moreover, a control means Since the drive time amount or the count of a drive of an inner lift was changed according to the amount of the detected washing, when there is little washing It is short in the time amount of high-speed rotation, and by setting up a count few, the ball up of the washing to the inner lift wall by high-speed rotation can be lessened, and the wrinkling of the washing can be reduced. Moreover, when there is much washing, it is long in the time amount of high-speed rotation, and by setting up many counts, the dehydration engine performance can be raised and the drying time can be shortened.

[Translation done.]

* NOTICES *

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2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]
[Drawing 1] The sectional view of the wash dryer of the 1st example of this invention
[Drawing 2] The block circuit diagram of this wash drier
[Drawing 3] The operation flow chart in the dehydration stroke of this wash drier
[Drawing 4] The operation flow chart in the dehydration stroke of the wash drier of the 2nd example of this invention
[Drawing 5] The operation flow chart in the dehydration stroke of the wash drier of the 3rd example of this invention
[Drawing 6] The operation flow chart in the dehydration stroke of the wash drier of the 4th example of this invention
[Drawing 7] The operation flow chart in the desiccation stroke of the wash drier of the 5th example of this invention
[Drawing 8] The sectional view of the conventional wash dryer
[Description of Notations]
1 Case
3 Outside Tub
4 Inner Lift
6 Rotary Wing
8 Motor (Driving Means)
15 Blower for Desiccation (Ventilation Means)
16 Heater (Heating Means)
29 Control Means

[Translation done.]

* NOTICES *

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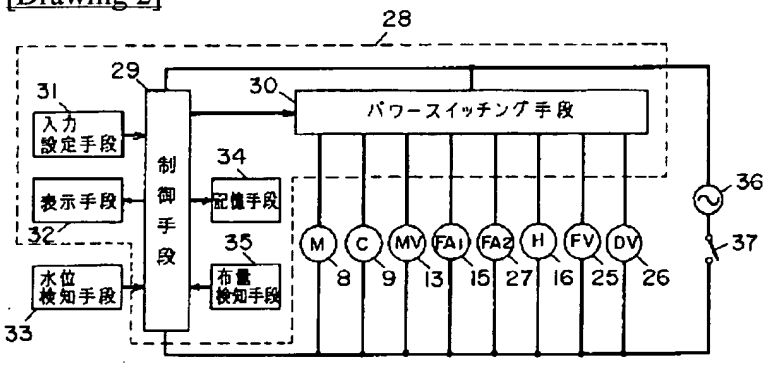
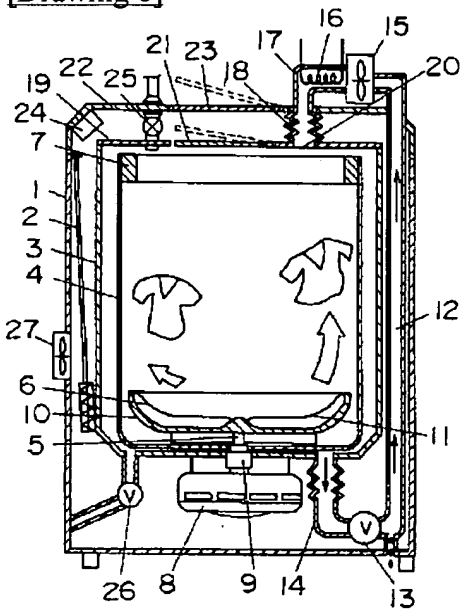
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

DRAWINGS

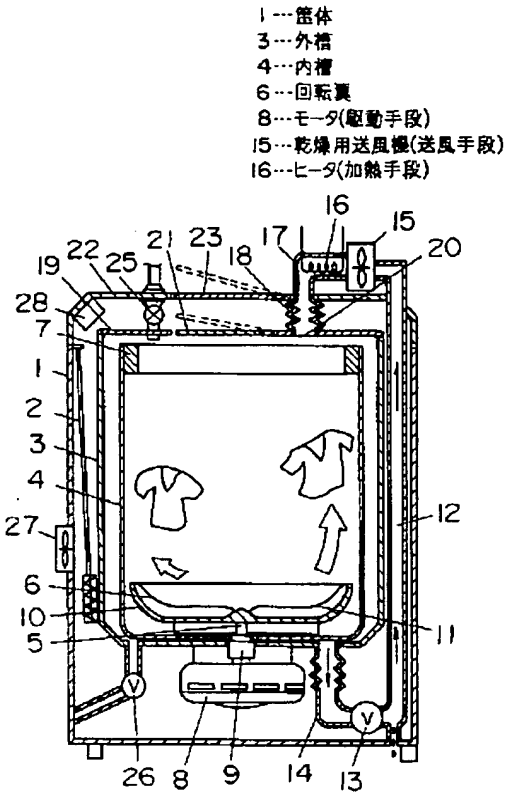
[Drawing 2]



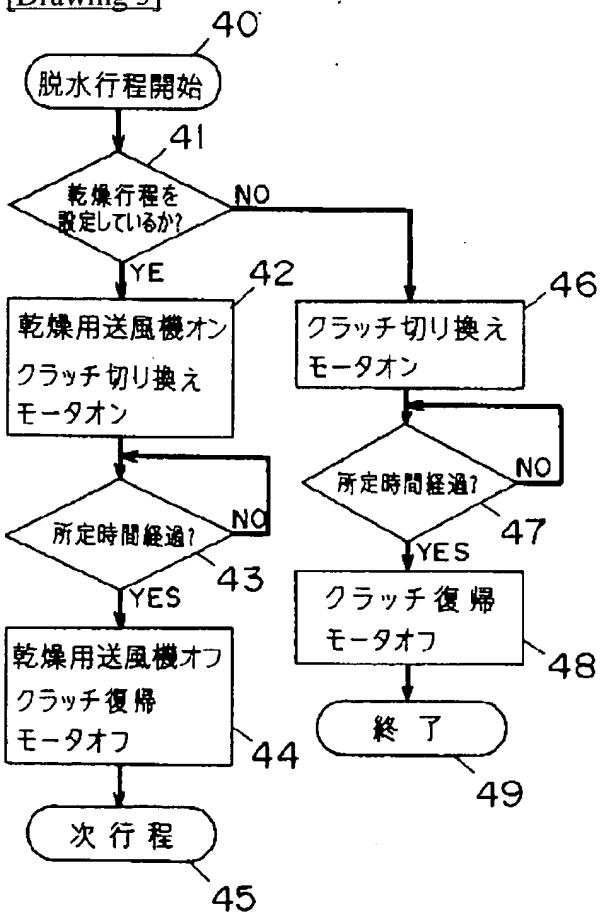
[Drawing 8]



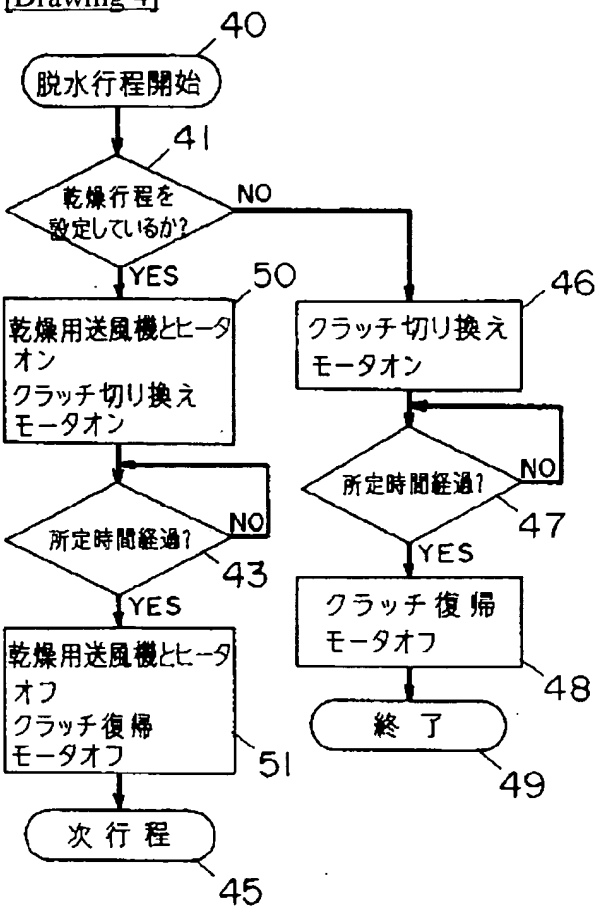
[Drawing 1]


1---筐体
3---外槽
4---内槽
6---回転翼
8---モータ(駆動手段)
15---乾燥用送風機(送風手段)
16---ヒータ(加熱手段)

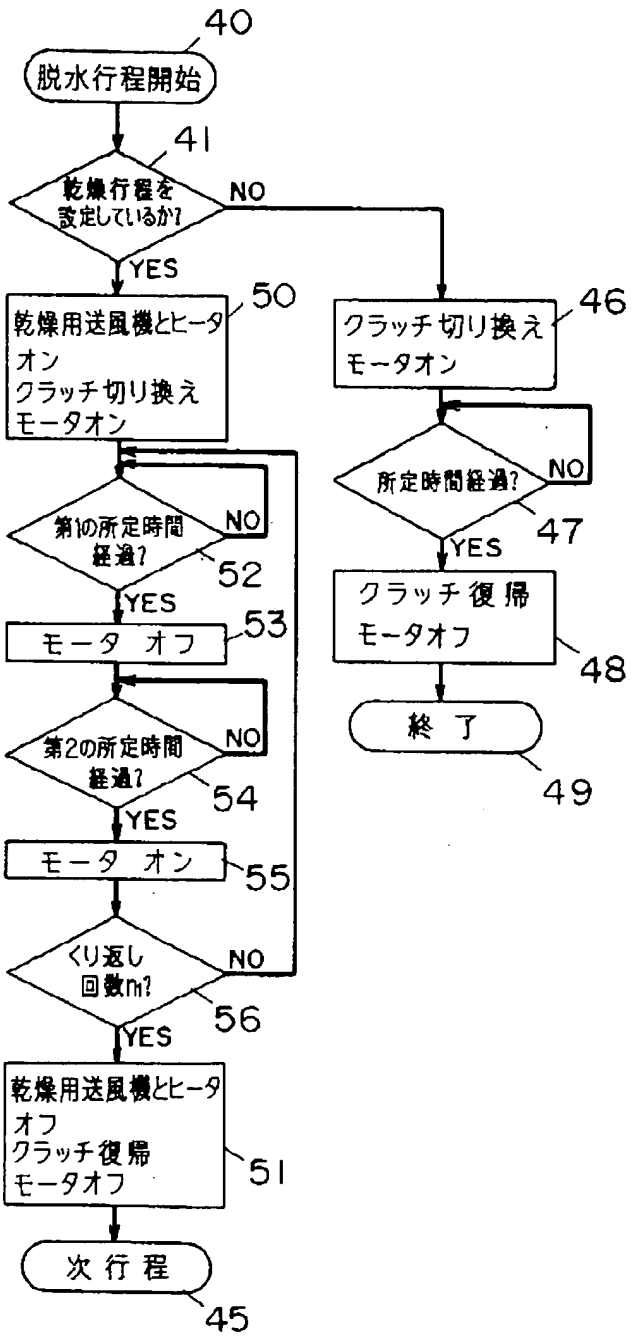
[Drawing 3]


40
脱水行程開始
41
乾燥行程を設定しているか?
NO
YE
42
乾燥用送風機オン
クラッチ切り換え
モータオン
所定時間経過?
NO
43
YES
乾燥用送風機オフ
クラッチ復帰
モータオフ
44
次行程
45
46
クラッチ切り換え
モータオン
所定時間経過?
NO
47
YES
クラッチ復帰
モータオフ
48
終了
49

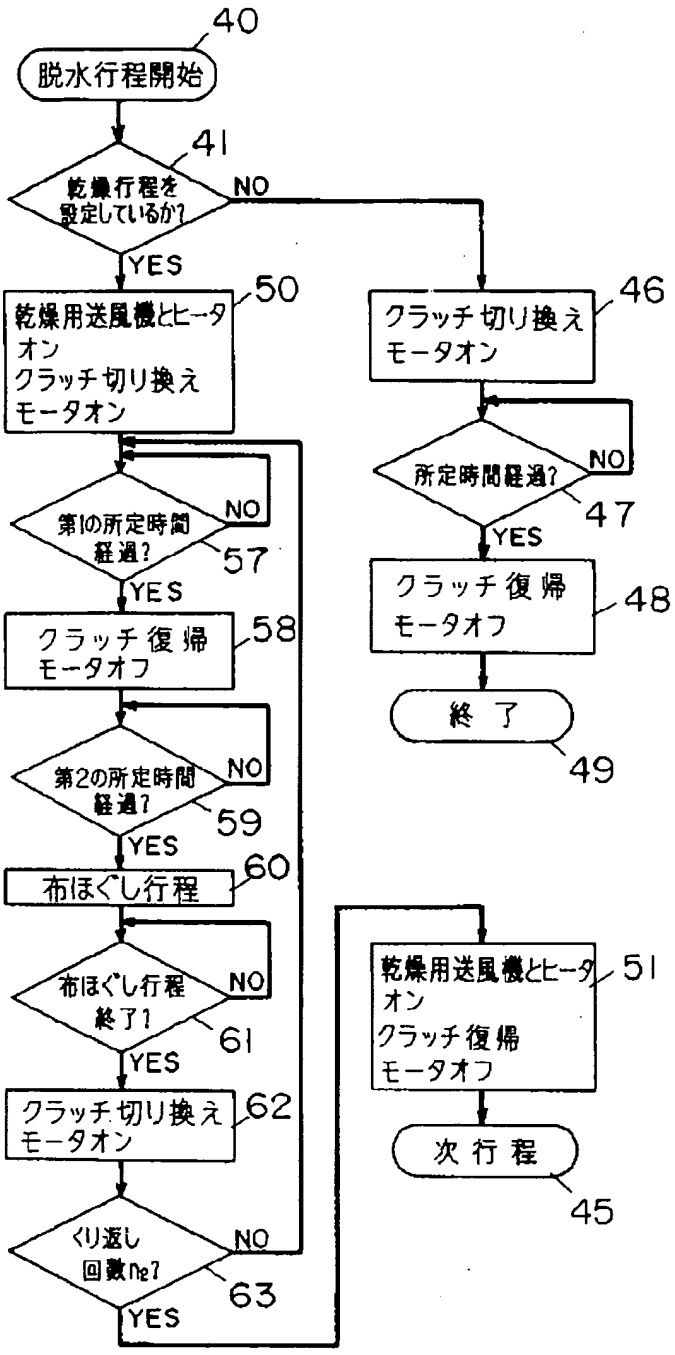
[Drawing 4]



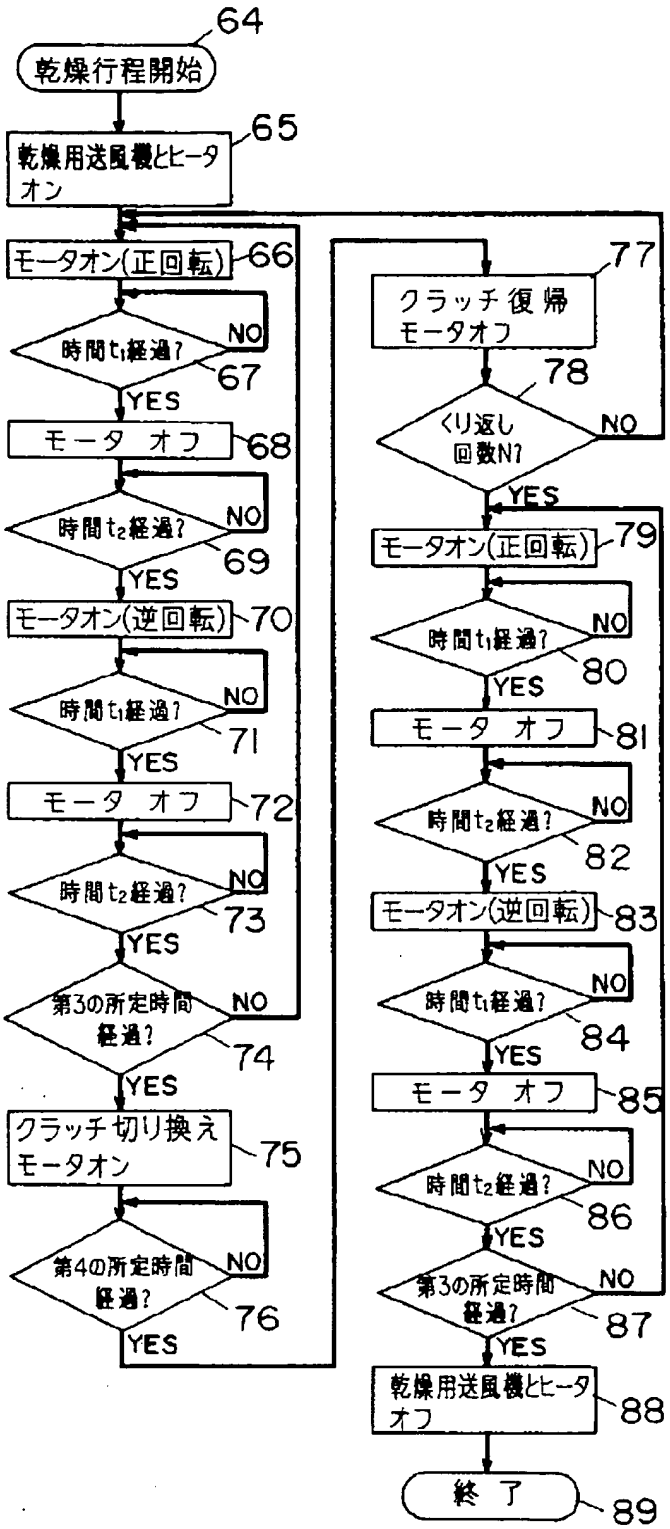
[Drawing 5]


40
脱水行程開始
41
乾燥行程を設定しているか?
NO
YES
50
乾燥用送風機とヒータオン
クラッチ切り換えモータオン
46
クラッチ切り換えモータオン
所定時間経過?
NO
47
YES
第1の所定時間経過?
NO
52
YES
クラッチ復帰モータオフ
48
53
モータ オフ
終了
49
第2の所定時間経過?
NO
54
YES
モータ オン
55
くり返し回数n?
NO
56
YES
乾燥用送風機とヒータオフ
クラッチ復帰モータオフ
51
次行程
45

[Drawing 6]


40
脱水行程開始
41
乾燥行程を設定しているか?
NO
YES
50
乾燥用送風機とヒータオン
クラッチ切り換えモータオン
46
クラッチ切り換えモータオン
所定時間経過?
NO
47
YES
クラッチ復帰モータオフ
48
終了
49
第1の所定時間経過?
NO
57
YES
クラッチ復帰モータオフ
58
第2の所定時間経過?
NO
59
YES
布ほぐし行程
60
布ほぐし行程終了?
NO
61
YES
クラッチ切り換えモータオン
62
くり返し回数n2?
NO
63
YES
乾燥用送風機とヒータオン
クラッチ復帰モータオフ
51
次行程
45

[Drawing 7]



[Translation done.]